Proposer Information Pamphlet (PIP)

BAA00-005

Technology Development for Immune Buildings

(TD)

15 September 2000

This page intentionally left blank

TABLE OF CONTENTS
PROPOSER INFORMATION PAMPHLET FOR BAA00-005
TECHNOLOGY DEVELOPMENT FOR IMMUNE BUILDINGS

1 Technology Development (TD) for Immune Buildings

1.1 Solicitation Overview

In support of the DARPA SPO Immune Building Program, NAVSEA Indian Head is soliciting proposals (technical and cost) from qualified corporations, research centers, universities, FFRDCs, and DoE laboratories under BAA00-005. This program seeks to make military buildings (such as barracks, office buildings, and Command and Control centers) far less attractive targets for attack by airborne/aerosolized chemical or biological warfare agents (CWA, BWA), by modifying and augmenting building infrastructure to greatly reduce the effectiveness of any such attack. Through this BAA, the Government solicits proposals to develop component technologies that hold the promise of significantly improving our ability to implement such systems. Particular areas of interest include, but are not limited to, novel filtration, optimized air handling, neutralization, and decontamination technologies. (Through another BAA, NAVSEA Indian Head BAA00-006, the Government is soliciting proposals to design, develop, implement, optimize, and demonstrate complete systems architectures to achieve the program goals.) This Proposer Information Pamphlet (PIP) provides information for the submission of proposals in response to BAA00-005.

The Government intends to fund multiple awards. Some proposals deemed technically acceptable may not be funded. Decisions to fund proposals are based on funds available, scientific and technical merit, and potential contribution and relevance to the DARPA mission. The Government reserves the right to select for award all, some, or none of any proposals received, and to negotiate teaming arrangements. All responsible sources capable of satisfying the Government's needs may submit a proposal for consideration. Proposals identified for funding may result in traditional FAR/DFARS contracts, grants, cooperative agreements, and/or Other Transaction Agreements, depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors.

1.2 Program Background and Goals

Like most people, those in the military spend the majority of their time inside buildings. Therefore, buildings are natural targets for attack by chemical or biological warfare agents. On the other hand, it is possible to exploit the existing building infrastructure to greatly reduce the impact of such attacks, especially since attacks by chemical or biological agent weapons do not disrupt this infrastructure (walls remain standing, electrical power functions, the heating, ventilation, and air conditioning (HVAC) system continues to circulate the air).

The overall purpose of the Immune Building program is to develop and demonstrate technologies and systems to make military buildings such as barracks or temporary quarters, office buildings, and Command and Control centers far less attractive targets for attack by covert or overt releases of airborne/aerosolized chemical or biological warfare agents. *The main DARPA focus is on the challenging problem of protection from internal releases.* This will be achieved by modifying and augmenting building infrastructure to greatly reduce the effectiveness of any such attack. These modifications/augmentations could include changes to the ordinary HVAC infrastructure – such as real-time, active control of airflow patterns, and/or full-time, passive, highly efficient filtration – in addition to whatever other modifications might be appropriate, such as real-time neutralization of the aerosolized agent, or networked surveillance systems. *The Immune Building program sets forth three*

goals: to protect the human inhabitants; to restore the building to function quickly after an attack; and to preserve forensic evidence for future medical treatment of victims and retaliation against perpetrators.

1.3 Technology Development, BAA00-005 (TD)

Through this BAA, referred to as TD, the Government solicits proposals to design and develop high-risk, high-leverage technologies and prototypes that hold the potential of greatly improving the performance or feasibility of complete building protection systems. Offerors may propose the development of novel technologies or innovative components or subsystems. Particular areas of interest include, but are not limited to, filtration, HVAC, neutralization, and decontamination, as well as other areas with a clear potential to impact system performance and/or cost (installation and operation).

Example areas of interest in filtration include novel approaches that create high-capture-efficiency, very-low-pressure-drop filters; and combining chem and bio filters (e.g. carbon-fiber HEPA filters) into a single, low-pressure-drop unit. Areas of interest in neutralization include technologies such as efficient light sources tuned to deliver energy at those frequencies most damaging to chem and bio agents; and chemicals or other materials that sensitize the agents so they are more vulnerable to light or to other environmental factors. Integrated filtration and neutralization technologies, that simultaneously capture and render harmless chem and bio agents, are also of interest. In the area of decontamination, technologies of interest include continuously self-cleaning surfaces and paints, as well as post-event techniques such as the use of foams, emulsions, or other materials to create micro-environments toxic to chem and bio agents. This list provides only a few examples of component technologies covered under this BAA. Offerors may propose other technologies, at their discretion. In all cases, proposers must describe how their technology is expected to impact building protection systems.

Performers are responsible for all aspects of work required to successfully develop their proposed technologies into functioning prototypes, including fully testing and characterizing their performance against simulants of BWA and CWA. DARPA expects that those technology development efforts that are successful will be tested as part of larger systems in full-scale testbeds as described below.

1.4 Interaction with Integrated System Experimentation, BAA00-006 (ISE)

Under a related BAA (BAA00-006, referred to as ISE), the Government is soliciting proposals to design, develop, implement, test, optimize, and demonstrate complete systems architectures to achieve the three Immune Building program goals. ISE performers will design building-protection systems architectures; develop, as necessary, the required component technologies within those systems; implement the systems solutions at full scale in well-instrumented testbeds; test the effectiveness of various protection strategies and systems architectures; optimize the most effective protection systems and the required components; and, finally, measure the overall protection provided by that optimal systems solution.

It is the intention under the TD BAA00-005, as described in this PIP, to develop subsystems, components, or technologies with the potential to significantly impact the effectiveness or

practicality of the optimized protection systems developed under the ISE BAA. Activities funded under the TD BAA will undergo a downselection at the end of the first year (Phase I) and may be subjected to further downselection under Phase II. An important element in the downselection process(es) will be the expected impact of the work under TD on the complete systems solutions being developed under ISE. Therefore, successful offerors under this TD BAA should expect to work closely with at least one of the teams funded under the ISE BAA; and they should plan on integrating and testing their full-scale prototype developed under Phase II in one of the test facilities created as part of the ISE work.

The Government will help facilitate the interaction between performers under the two BAAs, to allow the ISE performers to understand what technologies and components are under development under TD and to allow the TD performers to understand how their work might impact the building protection systems being developed under ISE. This interaction will require performers under the separate BAAs to brief each other on their direction and progress. Offerors should be aware that all performers under each BAA will be required to brief at least some of the performers under the other BAA. The briefings will begin in FY01 and the schedules will be worked out in collaboration with the Government.

Multiple technologies may be submitted as part of a single proposal under the TD BAA, but the technical and cost proposals must clearly segregate the effort and cost for each proposed technology. Offerors may propose technologies under the TD BAA and/or as part of a broader, systems-level effort under the ISE BAA. However, work that is selected for funding under ISE will not be considered for funding under TD.

2 TD Structure and Technical Scope

2.1 Phase I

Phase I will last approximately 9 months and will be used to demonstrate and/or develop subsystems, components and technologies for possible evaluation at full scale in Phase II. It is anticipated that multiple Phase I contracts will be awarded. Performers will evaluate the threat; determine the critical technical issues that must be resolved to determine the feasibility of their approach; perform adequate testing and analysis to assess the technical feasibility of their approach; and provide a preliminary design for a full-scale system.

2.2 Downselect

At the end of Phase I, the subsystems, components, or technologies will be evaluated for technological maturity. Those efforts that show the most promise for impacting the performance of building protection systems will be selected for continuation into Phase II. The remainder of the efforts will be terminated. The evaluation process will include consideration of the following factors:

- Demonstrated technical feasibility of the approach; or demonstrated promise of technical feasibility.

- Breadth/number of BWAs and CWAs for which it is effective.
- Expected impact and estimated practicality of prototype in full-scale building protection systems.
- Proposed preliminary design for use in full-scale building protection systems.
- Demonstrated ability of the performer to carry out the work required to complete Phase II successfully.

2.3 Phase II

Phase II is an approximately 15-30 month effort to develop prototype systems from successful Phase I efforts for full-scale implementation and testing.

For the most mature technologies selected from Phase I, performers will undertake a 15-month effort to complete the design for a full-scale prototype, and to develop and optimize it. At the end of Phase II, the prototypes will be tested as part of a complete building protection architecture, such as developed under ISE (BAA00-006). Promising but less mature technologies will be provided up to 15 months at the beginning of Phase II to continue the technology development, before entering the prototype stage described above. Some technically successful prototypes products from Phase II may be terminated before the end of Phase II, at the discretion of the Government.

3 TD Deliverables

With the exception of any financial information or other exceptions negotiated as described in §7.1.10, the deliverables listed below may be released to outside organizations, both U.S. Government and non-Government, in support of efforts to defend against attack by biological and chemical warfare agents. The performer may recommend a preferred format for each deliverable, but the final format will be determined by the Government. For each Phase, monthly status reports are due within two weeks of the end of each month; quarterly reports are due at the time of the quarterly reviews; and the other deliverables are due at the conclusion of each Phase.

3.1 Phase I Deliverables

- Monthly status report showing task schedule, current task status, and task cost to date (format: written report). Tasks significantly behind schedule or above budget may require more documentation at the discretion of the Government.
- First quarterly report, approximately three months after kickoff. This report will include a description of the threat assessment, the critical technical issues to be addressed, and the plan to address them, including a detailed experimental plan submitted for Government review and approval. It will include progress, status, and conclusions to date. This report will be in the form of a briefing to DARPA and will be provided in both paper and electronic format.

- Second quarterly report, approximately three months after the first, describing progress, status, and conclusions to date, as well as plans to modify the SOW for the remainder of Phase I, if necessary. This report will be in the form of a briefing to the Government, and will be provided in both paper and electronic format.

- Final report of results of Phase I (detailed written report, plus a shorter report in briefing format), including: description of the hazard assessment; subsystem, component or technology assessment; enumeration of remaining unknowns and uncertainties.

- Description of all experiments and tests carried out during Phase I, and all data and analyses that result, including uncertainty analyses.

- Scientific and Technical Report for any subsystem, component or technology developed as part of this effort.

- Detailed plan for Phase II, including: preliminary design of full-scale prototype; plans for further development of technology or component, as required; experimental plan for developing and testing the proposed full scale capability; detailed activity schedule and cost breakdown to carry out Phase II.

- Plans and agreements, if any, to test prototype in a full-scale building protection system, such as one created under BAA00-006.

3.2 Phase II Deliverables

- Monthly status reports, as in Phase I.

- Quarterly progress reports, as in Phase I, describing progress, status, and conclusions to date, as well as plans to modify the SOW for the remainder of Phase II, if necessary.

- Final report, as in Phase I, including results from all Phase II experiments and testing, and evaluation of prototype effectiveness.

- Prototype of the final subsystem, component or technology; a detailed systems design for the prototype; and a functional description of the appropriate procedures for operation and maintenance. Source code to use the prototype, if applicable.

- Description of all experiments and tests carried out during Phase II, and all data and analyses that result, including uncertainty analyses.

- Scientific and Technical Report for any subsystem, component or technology developed as part of this effort.

4 TD Schedule

The anticipated schedule is given below. Changes to the dates in §4.1 will be sent to all organizations that have registered their interest in this BAA (see §9.1). Changes to the dates in §4.2 will be communicated directly to the performers.

4.1 Solicitation Schedule

A Bidder's Conference will be held on 20 September 2000, and participants must register by 15 September to attend (see §9.3 for details). To be considered for the first round of evaluations, proposals must be received as described in §9.5 by 1600 EST, 20 November 2000. Source selection will be completed in early December 2000, followed immediately by contracting. Kickoff meetings will take place in January 2001.

This BAA will remain open for one year, and proposals will be evaluated at least quarterly if a sufficient number of proposals is received. Otherwise, proposals will be evaluated at the Government's discretion.

Table 1. Tentative schedule of events and deadlines associated with BAA00-005.

DATE	EVENT
1 Sept 2000	CBD announcement published.
15 Sept 2000	Registration ends for Pre-proposal Conference.
20 Sept 2000	Pre-proposal Conference.
20 Nov 2000	Proposals due.
Early Dec 2000	Source selection completed. Contract negotiations.
Jan 2001	Kickoff meetings.

4.2 Performer Schedule (Major Milestones)

- Jan FY01 Phase I kickoff meeting.
- 2QFY01 Threat assessment and critical technical issues due.
- 4QFY01 Assessment of technical progress. Prototype PDR. End Phase I.
- 1QFY02 Phase II kickoff.
- 2QFY02 CDR for prototype design.
- 3QFY02 Prototype delivery.
- 4QFY02 Begin prototype testing in building protection system.

In addition, there will be quarterly reviews with the DARPA Program Manager and Contracting Officer. Teleconferences and other meetings will be scheduled as required. During Phase II the evaluation of prototype performance as part of a building-protection system will take place in third-party facilities (such as those developed under ISE BAA00-006) and will entail Test Readiness Reviews and other such coordinating activities and requirements to demonstrate progress.

5 TD Funding

The total estimated funding for BAA00-005 is shown in Table 2. Phase I funding is expected to be in the range of $500K to $1M per performer.

Table 2. Estimated total funding profile for BAA00-005.

	FY01	FY02	FY03
Funding	**$5M**	**$7M**	**$7M**

6 Security

A portion of the work to be conducted under this BAA will be SECRET**,** as outlined in DARPA Security Classification Guide (SCG) 181. (This SCG may be requested by registered organizations through the website or by email as described in §9. The basic guidelines for determining what material is classified are as follows: complete systems designs for the "optimal" designs are classified; data quantifying the performance of the optimal systems or their key components against the threat are classified; information divulging system vulnerabilities is classified, including – as appropriate – component requirements, systems implementations, or system limitations that highlight those vulnerabilities. The overarching classification guidance is provided in Army Regulation AR 380-86, "Classification of Former Chemical Warfare, Chemical and Biological Defense, and Nuclear, Biological, Chemical Contamination Survivability Information", 30 June 1999.) Because the prototypes developed under this BAA are planned to be tested as part of complete building protection systems, and because some of these test results will be classified, it is preferred that offerors include key personnel with SECRET clearances and that they have access to classified facilities. However, in order to accept the broadest possible range of technology developers under this BAA, the Government will accept proposals from those organizations without cleared facilities or personnel. Offerors must clearly state the clearance level of their personnel and facilities as part of their written proposals (see §7). Those performers without appropriate clearances will need to make arrangements for the Phase II testing of their prototypes (such as, for example, hiring personnel with SECRET clearances), and they should be aware that they will not have access to all data resulting from these tests until they have the personnel and facilities to properly handle the data.

7 Proposal Preparation Instructions

The Government anticipates that awards will be made during the first quarter of the Government fiscal year 2001 (December). Offerors should submit multiple year proposals that span both phases of the program, beginning with a base period of 9 months for Phase I, and a follow-on option of 15-30 months for Phase II. All data an offeror deems pertinent to a proposal should be submitted with the proposal. Proposals will consist of two volumes: Volume I – Technical Proposal, and Volume II – Cost Proposal. Proposals must be submitted in both print and electronic form, as described in §9.5. Proposals will be prepared in the following format: single sided, 8.5×11 inches, in at least 12 point type, single spaced with margins not less than one inch. Pages must be numbered sequentially.

NOTICE TO OFFERORS REGARDING CLASSIFIED PROPOSALS: Offerors may not submit completely classified Technical Proposals. Those portions that require classification should be segregated from the main proposal and submitted separately as described in §9.5.

Questions regarding proposal submission should be directed to one of the points of contacts listed in §9.4. Offerors are advised that only contracting officers are legally authorized to contractually bind or otherwise commit the Government.

7.1 Volume I – Technical Proposal

Volume I will be no longer than 20 pages in length, not including the cover page, table of contents, statement of work, and Appendix A. Foldouts are counted as a single page and must be no larger than 11 x 17 inches with no more than five foldouts allowed in the proposal. Only the first 20 pages of Volume I proposals will be evaluated. Proposals with fewer than the maximum number of pages are highly encouraged. (Note regarding page limits: for cases in which an offeror is proposing clearly separable and distinct technologies or components as part of a single proposal package, every such additional technology or component beyond the first one increases the page limit by seven (7). It is the responsibility of the offeror to make clear within the proposal the distinction and separation between the several technologies or components.) Clarity in describing the work to be carried out will be used during the evaluation process as an important indicator of the ability of the proposer to plan and carry out the work.

The following outline describes the minimum requirements for Volume I and must appear in clearly marked form in the order indicated.

a) Cover Page*
b) Table of Contents*
c) Executive Summary
d) Technical Approach
e) Statement of Work*
f) Description of Resources and Facilities
g) Schedule or Milestone Chart

* Items not included in Volume I page limit

h) Deliverables
i) Key Personnel Summary
j) Past Performance Summary
k) Ownership of Products
l) Organizational Conflict of Interest
m) Appendix A*

7.1.1 COVER PAGE

The Cover Page must include the following information in the order indicated:

a) BAA number: BAA00-005
b) BAA title: Technology Development for Immune Buildings
c) Proposal Title: (as selected by offeror)
d) Volume I – Technical Proposal
e) Prime Offeror: (name of prime)
f) Subcontractors: (listed, if applicable)
g) Technical Contact: (name, address, phone/fax, electronic mail address)
h) Administrative Contact: (name, address, phone/fax, electronic mail address)
i) Type of Business: (large business, small disadvantaged business, other small business, HBCU or MI, other education, or nonprofit)

7.1.2 EXECUTIVE SUMMARY

The executive summary will provide an overview of the proposed technology, component, or subsystem, a short description of its expected impact on building-protection systems, and a brief statement of the work required to develop the approach into a working prototype (through the end of Phase II). Any outstanding features that the offeror believes distinguish the proposal should be clearly and succinctly identified here.

7.1.3 TECHNICAL MATERIAL

The offeror will describe the proposed subsystem, component, or technology to be developed. This section must include the following material:

- A description of the subsystem, component or technology proposed for development.
- The application or expected contribution to building protection systems, and the strengths or advantages of the proposed approach.
- The relevant underlying physical mechanisms (or hypothesized mechanisms) that allow (or could allow) the subsystem, component, or technology to function as proposed.

- The degree to which those underlying physical mechanisms have been explored and understood.

- The path by which the remaining, poorly understood mechanisms can be clarified to provide the required technical underpinnings of the subsystem, component, or technology proposed.

This section must clearly describe not only the proposed application of the subsystem, component, or technology, but also the work required to understand the physical mechanisms that play critical roles in the proposed application. It must clearly describe the degree of risk, the technical barriers, and the innovation required to successfully develop a working prototype.

7.1.4 Statement of Work (SOW)

The offeror will provide a SOW written in plain English, describing the proposed plans to carry out the work under this BAA. The SOW will include:

- A breakdown of the work necessary to create the prototype of the proposed subsystem, component or technology and to test it, including development, integration, and testing (effectiveness evaluation). Work will be divided into individual tasks, as the offeror deems appropriate. Technical barriers and areas requiring special innovation must be highlighted.

- A proposed plan, including schedule, to complete this work. The Phase I plan must be specific and detailed. The Phase II plan may be outlined more broadly, since a detailed version will be delivered at the end of Phase I.

During the work under this BAA, it is expected that the SOW will evolve. It will be periodically reviewed and updated with Government approval.

7.1.5 Resources and Facilities

Offerors will identify all resources to be used in carrying out this work, and will specify the availability of those resources for this work. When offerors plan to subcontract with outside organizations not part of the proposal, these organizations, their capabilities, and their commitment to providing the needed support must be clearly identified. Any interactions with or agreements with U.S. Government facilities for this purpose must also be identified.

Classified resources available for this work must be explicitly identified.

7.1.6 Schedule and Milestones

Proposals will include a graphic illustration showing the major milestones in the SOW arrayed against the proposed time and cost estimates.

7.1.7 Deliverables

Proposals will include a list of deliverables, correlated with the corresponding SOW tasks. At a minimum, offerors should include the deliverables listed in §3.

7.1.8 KEY PERSONNEL SUMMARY

Certain skilled, experienced professional and/or technical personnel are essential for successful completion of the work to be performed under this contract. These "Key Personnel" will be identified by name in the proposal, and must include at least one person from each subcontracting organization, as well as the proposed manager of the overall effort. They will be described concisely in a few pages, listing a summary of the qualifications and relevant past efforts of each person, the critical contributions they are expected to make to the effort, their clearance level, and their proposed level of effort. The contractor agrees that such personnel will not be removed from work on this contract or replaced without compliance with §10. Other personnel identified for work on the proposal but not as critical to the success of the effort should be listed in Appendix A (see §7.1.11).

7.1.9 PAST PERFORMANCE SUMMARY

Past performance is a measure of the degree to which an offeror, as an organization, has satisfied its customers in recent work, and complied with federal, state, and local laws and regulations. The offeror shall provide a list of people capable of evaluating the offerors' past performance during the past three years in these areas: (1) the quality and timeliness of the offeror's work; (2) the reasonableness of its prices, costs, and claims; (3) the reasonableness of its business behavior – its willingness to cooperate and helpfulness in solving problems; (4) its concern for the interests of its customers; and (5) its integrity. The Past Performance Questionnaire is provided in Appendix A.

The offeror will provide the list of references/evaluators as part of the proposal, using the Past Performance Matrix (Appendix B). It must include the names of at least three references. Offerors who cannot provide three references will explain why in their proposals. Offerors will complete the cover sheet of the Past Performance Questionnaire for each reference listed, and send the entire Questionnaire to the reference. The offeror shall request the references to complete the Questionnaire and return it by 27 November 2000 directly to: Naval Surface Warfare Center, 101 Strauss Avenue, Indian Head MD 20640-5035, Attn: Brenda Price, Code 1143B, Bldg. 1558. Failure by the references to return the Questionnaire to this address within the requested timeframe will result in the inability of the Government to rank the offerors on the basis of past performance.

7.1.10 OWNERSHIP OF PRODUCTS

The U.S. Government will have ownership of all equipment and prototypes that result from this effort. The Government may choose to disseminate some of the reports and results publicly and may discuss them at conferences and at other public and private meetings. The results may form the basis for subsequent BAA, RA, or other solicitations from DARPA or other Government organizations. The Government does not plan to broadly disseminate the detailed systems designs submitted by the performers.

Successful performers under this BAA will be expected to interact with performers under other Government-funded efforts (such as ISE BAA00-006), and these interactions will necessitate the sharing of technical and performance information about their Government-funded activities. Performers should be prepared to reveal, if necessary for this purpose and under appropriate non-disclosure agreements, some of the product developed as part of their work under this BAA.

The Government expects to retain, at a minimum, Government Purpose Rights (GPR) to all intellectual property (IP) resulting from this effort, including technical data and computer software and computer documentation, as set forth in DFARS 252.227-7013 and DFARS 252.227-7014. The Government will entertain negotiations for exceptions from GPR, under limited circumstances, as set forth under DFARS 252.227-7013(b)(4) and DFARS 252.227-7014(b)(4). The proposal should include a summary of any previously existing proprietary claims to results, prototypes, or systems that will play a role in this work, and describe what aspects of existing systems will not be divulged to the Government. If there are no proprietary claims this section will consist of a statement to that effect. Any agreement for work resulting from this BAA will require continual supplementation of said proprietary claims summary. In addition, and where appropriate, Volume II of each proposal will have attached to it the information required by DFARS 252.227-7017, IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JUN 1995) and/or DFARS 252.227-7028 (JUN 1995) TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT.

7.1.11 ORGANIZATIONAL CONFLICT OF INTEREST

Each proposal will contain a section to comply with the following requirements. All awards made under this BAA are subject to the provisions of the Federal Acquisition Regulation (FAR) Subpart 9.5, Organizational Conflict of Interest. All offerors and proposed subcontractors must affirmatively state whether they are supporting any DARPA technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the offeror supports and identify the prime contract number. Affirmations will be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest, as that term is defined in FAR 9.501, must be disclosed. This disclosure will include a description of the action the offeror has taken, or proposes to take, to avoid, neutralize or mitigate such conflict. If the offeror believes that no such conflict exists, then it will so state in this section.

Only those offerors whose proposals are expected to result in contract award will be required to submit a completed and signed copy of "Representations, Certifications, and other Statements by Offerors or Quoters." This document is not required for the submission of a proposal unless specifically requested. Offerors are notified that this document is frequently updated and any offeror selected for award may be requested to submit an updated "Representations, Certifications, and Other Statements by Offerors or Quoters."

7.1.12 APPENDIX A

This material is not included in the page limit.

- PERSONNEL: The proposal will include a list of all personnel identified to work on the proposed activity. This list will include "Key Personnel", as described in §7.1.8, as well as other important prime and subcontractor personnel. A concise resume will be provided for each person listed in this section, describing their qualifications, current clearance level, and the amount of effort committed to this work for each contract year. Key Personnel are subject to the conditions set forth in §10.

- ASSOCIATE CONTRACTOR AGREEMENTS: Proposals will list all sub-contractor and other agreements existing or planned to support this work, including a description of the status of each such agreement.
- GOVERNMENT FURNISHED PROPERTY/EQUIPMENT: If any portion of the research is predicated upon the use of Government owned resources of any type, the offeror will specifically identify the property or other resource required, the date the property or resource is required, the duration of the requirement, the source from which the resource is required, if known, and the impact on the research if the resource cannot be provided. If no Government Furnished Property is required to conduct the proposed research, this section will consist of a statement to that effect.

7.2 Volume II – Cost Proposal

Cost proposals have no page-length limitations; however, offerors are requested to keep cost proposals to 15 pages as a goal. The electronic version of the Cost Proposal must be contained on the same CD-ROM, Zip disk, or diskette that contains the Technical Proposal, and any soft-copy spreadsheets must be submitted in a format usable in Microsoft Excel.

The Cost Proposal must contain the following sections, in the order listed:

a) Cover Page
b) Table of Contents
c) Budget Summary
d) Budget Details
e) Details of any cost sharing by the offeror (if proposed)

In addition, each cost proposal will contain a section that identifies the offeror's Taxpayer's Identification Number (TIN), DFARS 204.7202-3; Corporate and Government Entity (CAGE) code, DFARS 204.7202-1; and Contractor Establishment Code (CEC), DFARS 204.7202-2. The codes provided will be those of the offeror and not of the principal place of performance, if the two are different.

7.2.1 COVER PAGE

The Cover Page is the same as that for Volume I/Technical Proposal (see §7.1.1), except that item d) will read "Volume II – Cost Proposal".

7.2.2 BUDGET SUMMARY

Proposals must include a separate budget summary for each program phase. It must show, by phase: the cost for each task identified in the SOW of the Technical Proposal, including the manpower levels of effort (labor hours and cost) by task; cost of equipment, travel, G&A, and other expenses. Costs for team members or other subcontractors must be clearly identified under the appropriate tasks, and the net amount proposed for each organization must also be separately and clearly labeled.

If any or all of the work proposed under this BAA is submitted as part of a broader, systems-level effort under ISE (BAA00-006), those parts and their associated costs must be clearly identified in both proposals.

7.2.3 BUDGET DETAILS

The cost to carry out Phase I will be specified in detail, showing the information below by Government fiscal year (October through September). Similarly detailed information will be provided for Phase II as one of the deliverables for Phase I.

- Labor hours for each labor category, divided into the tasks and subtasks identified in the SOW, Volume I. Optional tasks/subtasks must be listed individually and priced separately.
- Personnel (name or designation, rate in dollars per labor hour, and percent time on project).
- Total cost by task/subtask identified in the SOW/Volume I.
- Total cost by labor category, with subtotals for each task.
- Proposed contractor-acquired equipment, itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, must be provided. Include under "Budget Details" a brief description of the procurement method to be used.
- Travel costs.
- Materials costs.
- Other direct/indirect costs.
- Any other information important for supplementing the Budget Summary for Phase I.

8 Proposal Evaluation

8.1 Evaluators

It is the policy of DARPA and NAVSEA Indian Head to treat all proposals as competitive information, and to disclose the contents only for the purposes of evaluation. The Government intends to use non-Government personnel as special resources to assist with the logistics of administering the proposal evaluation and to provide selected technical assistance related to proposal evaluation. Support personnel are restricted by their contracts from disclosing proposal information for any purpose. Contractor personnel are required to sign Organizational Conflict of Interest and/or Non-Disclosure Agreements. By submission of its proposal, each offeror agrees that proposal information may be disclosed to these selected contractors for the limited purpose stated above. Any

information not intended for limited release to support contractors must be clearly marked and segregated from other submitted proposal material.

8.2 Evaluation Criteria

Evaluation of TD proposals will be performed using the following criteria, which are listed in descending order of relative importance:

1) Scientific and technical merit

2) Offeror qualifications

3) Cost realism

8.2.1 Scientific and Technical Merit

The most important factor in evaluating the proposals is the scientific and technical merit of the proposed approach and its expected contribution to building protection systems. The evaluation of merit includes the following specific aspects:

- Technical merit and expected likelihood of success of the proposed subsystem, component or technology.
- Expected impact on the effectiveness and/or practicality of building protection systems, and the expected feasibility of the proposed approach.
- The breadth/range of BWA and CWA threats for which the approach is expected to be applicable.
- Clarity and soundness of proposed SOW, including completeness of plan for Phase I.
- Innovation displayed in proposal.

8.2.2 Offeror Qualifications

The next most important factor in evaluating the proposals is the demonstrated ability of the offeror's team to successfully carry out the proposed work. The evaluation includes these aspects:

- The offeror's relevant capabilities and demonstrated experience that indicate ability to carry out the planned work.
- The offeror's past performance in successfully carrying out similar work in the recent past.
- The offeror's resources and facilities committed to this work, as well as agreements with outside organizations for access to necessary facilities.
- The selection of key personnel with the skills and experience required to accomplish the tasking, and their availability for the duration of the contract.

8.2.3 COST REALISM.

Cost will be evaluated to determine whether the offeror's estimate is reasonable and realistic for the technical and management approach offered, as well as to determine the offeror's practical understanding of the effort. Cost reasonableness will be evaluated by assessing the number of labor hours and labor mix proposed, as well as the reasonableness of other cost elements (e.g. travel, materials, subcontractors, etc). Cost realism will only be used as an evaluation criterion if there is reason to believe that the offeror has significantly under- or over-estimated costs to complete the effort.

9 Administrative Information and Proposal Submission

Information announcing and updating this BAA is published in the Commerce Business Daily (CBD). In addition, an electronic copy of the CBD announcement and this PIP can be found on the World Wide Web at URL http://www.darpa.mil/baa/#spo under "SPO Solicitations Web Page". If the offeror does not have access to the World Wide Web, a request for the PIP can be emailed to IB_baa00_005@darpa.mil (subject line: REQUEST PIP); or faxed to (703) 289-5801, (Attn: BAA00-005 PIP Request); or mailed in written form to Booz Allen and Hamilton, Room 886 (Attn: BAA00-005 PIP Request), 3190 Fairview Park Drive, Falls Church, VA 22042. The message must include the name of the POC, phone number, fax number, and an address to use for surface mail delivery if email is not available. Offerors without access to electronic means of communication should be aware of the increased response time required by surface mail.

This PIP, along with the Commerce Business Daily (CBD) announcement, constitutes a Broad Agency Announcement (BAA) as contemplated in FAR 6.102 (d)(2)(i). Prospective offerors must refer to this PIP before submitting a proposal. This announcement does not commit the Government to pay for any response preparation cost. The cost of preparing proposals in response to the BAA is not considered an allowable direct charge to any other contract. However, it may be an allowable expense as specified in FAR 31.205-18.

Other information is available as described below.

9.1 Solicitation Registration

All parties interested in participating in this BAA must register their interest by providing the following information for their organization: a principal point of contact, phone number, fax, and email. This information should be emailed to IB_baa00_005@darpa.mil, with the subject line "REGISTER". DARPA will make available to all who register a complete list of the registered organizations and the contact information, unless any organization specifically requests not to be included on such a list.

9.2 Solicitation Website

At the time of registration, each organization will be provided a password for accessing the website for this solicitation. This website will contain regularly updated information about this

solicitation, as necessary. It will include a list of Frequently Asked Questions (FAQ) and their answers. And it will include information regarding classified (SECRET) reports available to registered organizations with appropriate security clearances.

9.3 Pre-proposal Conference

DARPA will host a Pre-proposal Conference on 20 September 2000 at the Arlington Hilton Hotel as described at http://www.darpa.mil/baa/#spo. Each organization that plans to attend this meeting must indicate their intention by email to IB_baa00_005@darpa.mil, with the subject line, "PRE-PROPOSAL CONFERENCE". In addition, each organization must provide the names of all planned attendees (using the same email address). Additional instructions will be provided to those who register. Registration to attend this meeting must be received no later than 15 September 2000.

9.4 Contacting DARPA

Technical, contractual, or administrative questions will only be answered if they are submitted in writing; questions will not be answered by phone. They may be submitted through the website after registration or emailed to IB_baa00_005@darpa.mil. These are the preferred modes for submitting questions. For those without access to electronic communication, faxed or written questions will be accepted at the addresses listed at the beginning of §9; these must include the subject line "BAA00-005 QUESTION". Questions will be accepted until one month after the Pre-proposal Conference (20 October 2000).

Regardless of how questions are sent to DARPA, the question and its answer (without the name of originator) will be appended to the FAQ file on the solicitation website for viewing by all registered organizations.

9.5 Submission Process

Offerors must submit an original (paper) proposal consisting of Volumes I and II, five (5) paper copies and an electronic copy on one of the following types of approved fixed media: a single CD-ROM; a single 100 Megabyte (MB) Iomega Zip® disk; or a single 3.5 inch High Density MS-DOS -formatted 1.44 MB diskette. The printed versions must be *bound*; ring binders will not be accepted. The fixed media must contain the technical proposal in MS Word or HTML format and the cost proposal in MS Excel-readable format; both must reference BAA00-005. To be considered for the first round of evaluations, proposals must be received by 1600 EST, 20 November 2000. Send to: NAVSEA Indian Head, Surface Warfare Center Division, 101 Strauss Avenue, Ms. Brenda Price, Contract Specialist, IB_baa00_005, Code 1143B, Indian Head, Maryland 20740. NAVSEA Indian Head will acknowledge receipt of the submission. Proposals submitted by fax or email will be disregarded.

If appropriate, offerors must segregate out any portion of their proposal that is SECRET and submit that portion separately. *Entire proposals that are classified SECRET will not be accepted.* The classified portions must contain the facility CAGE code, classified mailing address, and the facility security officer's name and phone number; and must be mailed in accordance with the NISPOM dated January 1995, Section 5-403. The outer wrapping is addressed to: NAVSEA Indian Head, Surface Warfare Center Division, 101 Strauss Avenue, Indian Head, Maryland 20740. The

inner wrapping is addressed to: NAVSEA Indian Head, Surface Warfare Center Division, 101 Strauss Avenue, Ms. Brenda Price, Contract Specialist, Code 1143B, Indian Head, Maryland 20740.

9.6 Awards

The Government reserves the right to select for award all, some, or none of the proposals received in response to this announcement. Awards may be traditional FAR/DFARS contracts, grants, cooperative agreements, and/or Other Transaction Agreements. The Government is seeking participation from the widest number of offerors. All responsible sources may submit a proposal, which will be considered by the Government. Historically Black Colleges and Universities (HBCU) and Minority Institutions (MI) are encouraged to submit proposals or to team with others in submitting proposals; however, no portion of this BAA is set-aside for HBCU and MI participation, due to the impracticality of reserving discrete or severable areas of technology for exclusive competition among these entities.

10 Key Personnel Requirement

If one or more of the key personnel, as defined in §7.1.8, for whatever reason, becomes or is expected to become unavailable for work under this contract for a continuous period exceeding 15 work days, or is expected to devote substantially less effort to the work than indicated in the proposal, the contractor will immediately notify the DARPA PM and the Contracting Officer and will, subject to the concurrence of the Contracting Officer or his authorized representative, promptly replace such personnel with personnel of at least substantially equal ability and qualifications.

All requests for approval of such substitutions must be in writing and must provide a detailed explanation of the circumstances necessitating the proposed substitutions. They must contain a complete resume for the proposed substitute, and any other information requested or needed by the Contracting Officer to approve or disapprove the proposed substitute. The Contracting Officer, in collaboration with the DARPA Program Manager, will evaluate such requests and promptly notify the contractor in writing of approval or disapproval of the substitution.

If the Contracting Officer determines that suitable and timely replacement is not reasonably forthcoming for key personnel who have been reassigned, terminated, or otherwise become unavailable for the contract, or that resultant reduction of productive effort would be so substantial as to endanger successful or timely completion of the contract, then the contract may be terminated by the Contracting Officer for default or for the convenience of the Government, as appropriate. Or, if the Contracting Officer finds the contractor at fault for the condition, s/he may choose to equitably adjust downward the contract price to compensate the Government for the resultant delay, loss or damage.

11 Appendix A, Past Performance Questionnaire

PAST PERFORMANCE QUESTIONNAIRE
FOR BAA00-005
Technology Development for Immune Buildings

COVER SHEET

Name of contractor questionnaire is being completed for: _____

Name of company or organization completing questionnaire: _____

Name and title of the person completing questionnaire: _____

Length of time your firm has been involved with the offeror: _____

Type of work performed by referenced offeror: _____

SUBMIT PAST PERFORMANCE QUESTIONNAIRE TO:

Naval Surface Warfare Center
101 Strauss Avenue
Indian Head MD 20640-5035
Attn: Brenda Price, Code 1143B, Bldg. 1558

SUBMIT QUESTIONNAIRE BY: 27 November 2000

PAST PERFORMANCE QUESTIONNAIRE
FOR BAA00-005
Technology Development for Immune Buildings

RATED QUESTIONS

Please use the following ratings to answer the first questions. If you are unable to rate an item because it was not a requirement, never an issue, or you have no knowledge of the item in question, please mark it "N/A".

Excellent	The contractor's performance was consistently superior. The contractual performance was accomplished with few minor problems, and corrective actions taken by the contractor were highly effective.
Good	The contractor's performance was good or better than average. The evaluator would willingly do business with the contractor again. The contractual performance was accomplished with some minor problems, for which corrective actions taken by the contractor were effective.
Neutral	No record exists.
Average	The contractor's performance was between good and average. The evaluator would consider awarding a contract to the contractor again. The contractual performance reflects a problem for which the contractor has not yet identified or implemented corrective actions.
Poor	The contractor's performance was entirely unsatisfactory. The evaluator would not do business with the contractor again under any circumstances. The contractual performance of the element being assessed contains problems for which the contractor's corrective actions were ineffective.

CUSTOMER SATISFACTION

1. The referenced contractor's responsiveness to the Customers needs.
   E G N A P N/A

2. The qualifications of the contractor's personnel, and their ability to meet the requirements.
   E G N A P N/A

3. The contractor's ability to accurately estimate costs.
   E G N A P N/A

TIMELINESS

4. The contractor's ability to ensure, to the extent of its responsibility, that all tasks were completed within the requested time frame.
   E G N A P N/A

TECHNICAL SUCCESS

5. The contractor's clear understanding of the work detailed in the SOW.
   E G N A P N/A

6. The contractor's ability to complete tasks correctly the first time.
   E G N A P N/A

7. The contractor's ability to resolve problems.
   E G N A P N/A

QUALITY

8. The quality and reliability of services delivered by the contractor.
   E G N A P N/A

9. Quality, reliability, and maintainability of hardware delivered.
   E G N A P N/A

SUBJECTIVE QUESTIONS:

10. Would you recommend this contractor for similar government contracts? Please explain:

11. Have you experienced special or unique problems with the referenced contractor that we should be aware of in making our decision?

12. In summary, which of the following would you choose to describe the quality of the referenced contractor's service:

    - o Significantly better than acceptable
    - o Slightly better than acceptable
    - o Acceptable
    - o Slightly less than acceptable
    - o Entirely unacceptable

13. In summary, which of the following would you choose to describe reference contractor's willingness to cooperate to resolve performance disagreements:

    - o Highly cooperative
    - o Cooperative
    - o Somewhat uncooperative
    - o Highly uncooperative

Thank you for taking the time to complete the evaluation.

Evaluator's name: _____

Signature: _____

Date _____

12 Appendix B, Past Performance Matrix

Evaluator name, address, phone number, and organization.	Contract value ($).	Description of work performed under contract.	Was contract completed on time? (Yes/No)	Was contract completed at cost? (Yes/No) If "No", provide % overrun.	Provide explanation for "No" answers.